

IN THE CLAIMS:

1. (Currently amended) A method for producing a filter for a respirator or fan unit, said method comprising the steps of:

intermixing a granular adsorbent, absorbent, chemisorptive, or catalytic material, or activated carbon with a meltable polymer(s) to produce a mixture;

molding the mixture in a connecting part comprising an inner surface with a complete or partial a) groove into which the mixture is formed or b) a tongue with a substantial length against which the mixture is formed; and

heating the mixture under pressure so as to make a molded piece that is adapted to work as a filter element for a respirator or fan unit and a substantially gastight connection between the molded piece and the inner surface of the connecting part at an interface so that the molded piece is formed so that it respectively engages in or at least partially encloses the groove or tongue and so that the molded piece and connecting part are stably connected to form a unit that can be operatively connected to a respirator or fan unit,

the molded piece and connecting part constructed so that: i) in the event the inner surface has a groove, gas flowing in a straight line path through the interface is required to pass through the mixture at the groove; and b) in the event the inner surface has a tongue, gas flowing in a straight line path through the interface is intercepted by the tongue and diverted out of the straight line path and thereby required to pass through the mixture.

2. (Currently amended) A filter for a respirator or fan unit, the filter comprising:
a mixture of granular adsorbent, absorbent, chemisorptive, or catalytic material,
or activated carbon, heated under pressure in a connecting part with a meltable
polymer(s) and pressed into a molded piece within the connecting part,

wherein the molded piece is adapted to work as a filter element for the respirator
or fan unit and there is a substantially gastight connection between said connecting part
and the pressed molded piece at the interface,

wherein the connecting part comprises an inner surface with a complete or
partial groove or tongue with a substantial length which the pressed molded piece
engages in, or at least partially encloses; respectively, so that the pressed molded
piece and connecting part are stably connected to form a unit that can be operatively
connected to a respirator or fan unit,

the molded piece and connecting part constructed so that: i) in the event the
inner surface has a groove, gas flowing in a straight line path through the interface is
required to pass through the mixture at the groove; and b) in the event the inner surface
has a tongue, gas flowing in a straight line path through the interface is intercepted by
the tongue and diverted out of the straight line path and thereby required to pass
through the mixture.

3. (Cancelled).

4. (Previously presented) The filter according to claim 2 wherein the connecting part comprises a periphery with at least one discrete fastener on the periphery for a detachable substantially gastight connection to a respirator or fan unit.

5. (Previously presented) The filter according to claim 4 wherein the connection to the respirator or fan unit is direct and detachable.

6. (Previously presented) The filter according to claim 18 wherein the fasteners are designed for a snap-in or threaded connection.

7. (Previously presented) The filter according to claim 2 wherein the connecting part is made of a polymer with a higher melting point than the polymer(s) of the pressed molded piece, or of cardboard or metal.

8. (Previously presented) The method for producing a filter according to claim 1 further comprising the step of operatively connecting the filter to a respirator or fan filter unit.

9. (Previously presented) The method for producing a filter according to claim 8 further comprising the step of providing an adapter and the step of operatively connecting the filter comprises operatively connecting the filter to the respirator or fan unit through the adapter, the adapter separate from and attachable to the filter to the respirator or fan unit.

10. (Previously presented) The method for producing a filter according to claim 9 wherein the step of operatively connecting the filter comprises the step of snap-fitting the filter to the adapter.

11. (cancelled).

12. (Previously presented) The method for producing a filter according to claim 1 wherein the step of providing a connecting part comprises the step of providing a ring-shaped connecting part.

13. (previously presented) The filter according to claim 2 in combination with a respirator or fan filter unit wherein the filter is operatively connected directly to the respirator or fan unit.

14. (previously presented) The filter according to claim 2 in combination with a respirator or fan unit wherein the filter is operatively connected to the respirator or fan unit through an adapter, the adapter separate from and attachable with the filter to the respirator or fan unit.

15. (Previously presented) The method for producing a filter according to claim 1 further comprising the steps of heating the mixture under pressure in the connecting part during the step of molding the mixture and thereafter connecting the

connecting part to an adapter that is in turn releasably connected to a respirator or fan unit.

16. (currently amended) The method for producing a filter according to claim 12 wherein the groove or tongue extends continuously in a ring shape substantially completely around the inner surface whereby there is no straight line path a gas can follow fully through the filter at the interface without either: a) passing through the mixture at the groove; or b) being diverted by the tongue into the mixture.

17. (currently amended) The filter according to claim 2 wherein the groove or tongue extends continuously substantially completely around the inner surface whereby there is no straight line path a gas can follow fully through the filter at the interface without either: a) passing through the mixture at the groove; or b) being diverted by the tongue into the mixture.

18. (previously presented) The respiratory filter according to claim 2 wherein the connecting part comprises a periphery with at least one fastener on the periphery for a substantially gastight connection to an adapter for connecting to a respirator or fan unit.

19. (previously presented) The filter according to claim 18 in combination with an adapter that has a threaded portion to connect to a respirator or fan unit.

20. (previously presented) The filter according to claim 19 wherein the adapter surrounds the periphery of the connecting part.

21. (previously presented) The filter according to claim 20 wherein the periphery of the connecting part is snap-in or threadably connected to the adapter.